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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,376	11/03/2003	Yasuomi Ooki	8028-1044	1130

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EXAMINER
DEAN, RAYMOND S

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/698,376	OOKI ET AL.	
	Examiner	Art Unit	
	RAYMOND S. DEAN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 14 – 15, 19 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Banaei teaches a method of wireless LAN (Local Area Network) communication, comprising the steps of: communicating data between a wireless LAN base station and a user terminal (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044), wherein the wireless LAN base station is shared by the service providers that connect to an internet (Section 0044, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); collecting data of a communication amount and communication time of the user terminal when the user terminal communicates on the internet through the wireless LAN base station and a one of the plural service providers contracted with a user of the user terminal (Sections 0044 – 0045); transmitting the data of the communication amount and communication time to a service management server (Sections 0044 – 0045); and calculating a charge for usage of the wireless LAN base station by the user terminal in accordance with the data of the communication amount and communication time (Section 0044). Stewart teaches a third party mall manager that manages and maintains WLAN access points. Stewart further teaches wherein a plurality of service providers use said WLAN. It is well established that third party mall managers receive fees for use of mall space.

Since the WLAN is using mall space the mall manager will receive fees for use of the space, which comprises a fee for the usage of the WLAN from the service providers (See Stewart Cols. 3 lines 51 – 56, 5 lines 32 – 35). Stewart thus teaches the limitation in question.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 14 – 15, 19 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Stewart et al. (US 6,970,927)

Regarding Claim 14, Banaei teaches a method of wireless LAN (Local Area Network) communication, comprising the steps of: communicating data between a wireless LAN base station and a user terminal (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044), wherein the wireless LAN base station is shared by the service providers that connect to an internet (Section 0044, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); collecting data of a communication amount and communication time of the user terminal when the user terminal communicates on the internet through the wireless

LAN base station and a one of the plural service providers contracted with a user of the user terminal (Sections 0044 – 0045); transmitting the data of the communication amount and communication time to a service management server (Sections 0044 – 0045); and calculating a charge for usage of the wireless LAN base station by the user terminal in accordance with the data of the communication amount and communication time (Section 0044).

Banaei does not teach the wireless LAN base station being in a common space of a shopping center managed by a manager and wherein the one of the plural service providers pays the charge to the manager.

Stewart teaches a wireless LAN (WLAN) base station being in a common space of a shopping center managed by a manager and wherein the one of the plural service providers pays the charge to the manager (Cols. 3 lines 51 – 56, 5 lines 32 – 35, See Response To Arguments above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the service provider group of Banaei with the mall service provider of Stewart thus enabling a roaming user to have WLAN access in a shopping mall as taught by Stewart.

Regarding Claim 15, Banaei teaches a system for wireless LAN (Local Area Network) communication, comprising: a wireless LAN base station (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044), said wireless LAN base station being shared plural service providers that connect to the internet (Section 0044, the wireless LAN equipment of the visited service provider is managed by the visited

service provider and the wireless LAN equipment of the home service provider is managed by the home service provider, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); a user terminal that communicates on the internet through said wireless LAN base station and a one of the plural service providers contracted with a user of the user terminal (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044); a service management server (Sections 0044 – 0045); means for collecting data of a communication amount and communication time of said user terminal when said user terminal communicates with said wireless LAN base station using the wireless LAN communication (Sections 0044 – 0045), means for transmitting the data of the communication amount and communication time to a service management server (Sections 0044 – 0045); and means for calculating a charge for usage of the wireless LAN base station by the user terminal in accordance with the data of the communication amount and communication time (Section 0044).

Banaei does not teach the wireless LAN base station being in a common space of a shopping center managed by a manager and wherein the one of said plural service providers pays the charge to the manager.

Stewart teaches a wireless LAN (WLAN) base station being in a common space of a shopping center managed by a manager and wherein the one of said plural service providers pays the charge to the manager (Cols. 3 lines 51 – 56, 5 lines 32 – 35, See Response To Arguments above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the service provider group of Banaei with the mall service provider of Stewart thus enabling a roaming user to have WLAN access in a shopping mall as taught by Stewart.

Regarding Claim 19, Banaei teaches a method of wireless LAN (Local Area Network) communication, comprising the steps of: communicating data between a wireless LAN base station and a user terminal (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044), wherein the wireless LAN base station is shared by the service providers that connect to an internet (Section 0044, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); identifying a one of the plural service providers contracted with a user of the user terminal that communicates with the wireless LAN base station (Section 0044, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); collecting data of a communication amount and communication time of the user terminal when said user terminal communicates on the internet through the wireless LAN base station and the one of the plural service providers (Sections 0044 – 0045); and calculating a charge for usage of the wireless LAN base station by the user terminal in accordance with the data of the communication amount and communication time (Section 0044).

Banaei does not teach the wireless LAN base station being in a common space of a shopping center managed by a manager and wherein the one of the plural service providers pays the charge to the manager.

Stewart teaches a wireless LAN (WLAN) base station being in a common space of a shopping center managed by a manager and wherein the one of the plural service providers pays the charge to the manager (Cols. 3 lines 51 – 56, 5 lines 32 – 35, See Response To Arguments above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the service provider group of Banaei with the mall service provider Stewart thus enabling a roaming user to have WLAN access in a shopping mall as taught by Stewart.

Regarding Claim 20, Banaei teaches a system for wireless LAN (Local Area Network) communication, comprising: a wireless LAN base station (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044), said wireless LAN base station being shared plural service providers that connect to the internet (Section 0044, the wireless LAN equipment of the visited service provider is managed by the visited service provider and the wireless LAN equipment of the home service provider is managed by the home service provider, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); a user terminal that communicates on the internet through said wireless LAN base station and one of the service providers contracted with a user of said user terminal that communicates with

said wireless LAN base station (Sections: 0037 lines 8 – 12, 0041 – 0042, 0043 lines 1 – 6, 0044); means for identifying the one of the plural service providers (Section 0044, the visited service provider shares it's wireless LAN equipment by allowing a user contracted with the home service provider to use the wireless LAN equipment of said visited service provider); means for collecting data of a communication amount and communication time of said user terminal when said user terminal communicates with said wireless LAN base station using the wireless LAN communication (Sections 0044 – 0045); and means for calculating a charge for usage of the wireless LAN base station by the user terminal in accordance with the data of the communication amount and communication time (Section 0044).

Banaei does not teach the wireless LAN base station being in a common space of a shopping center managed by a manager and wherein the one of said plural service providers pays the charge to the manager.

Stewart teaches a wireless LAN (WLAN) base station being in a common space of a shopping center managed by a manager and wherein the one of said plural service providers pays the charge to the manager (Cols. 3 lines 51 – 56, 5 lines 32 – 35, See Response To Arguments above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the service provider group of Banaei with the mall service provider of Stewart thus enabling a roaming user to have WLAN access in a shopping mall as taught by Stewart.

4. Claims 16, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Stewart et al. (US 6,970,927), as applied to Claims 15, 20 above, and further in view of Labun et al. (US 6,842,621).

Regarding Claims 16, 21, Banaei in view Bahl teaches all of the claimed limitations recited in Claims 15, 20. Banaei in view Stewart does not teach means for setting a time period for using said wireless LAN base station for the each of the plural service providers; and means for refusing connection of said user terminal when a time of usage thereof is out of the set time period for using said wireless LAN base station.

Labun teaches means for setting a time period for using said wireless LAN base station and means for refusing connection of said user terminal when a time of usage thereof is out of the set time period for using said wireless LAN base station (Column 9 lines 25 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Banaei in view of Stewart with the time band method of Labun for the purpose of preventing a ping-pong handover that could occur if a mobile moves into an edge of a proximity of coverage area of the access point as taught by Labun.

5. Claims 17 – 18, 22 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Stewart et al. (US 6,970,927), as applied to Claims 15, 20 above, and further in view of Kostic et al. (US 2003/0134642)

Regarding Claims 17, 22, Banaei in view of Stewart teaches all of the claimed limitations recited in Claim 15. Banaei in view of Stewart does not teach means for ranking the each of the service providers in accordance with charge plans on usage of said wireless LAN base station; and means for restricting connection in order from the service providers with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN bases station exceeds a preset number of connections of simultaneously connectable users.

Kostic teaches means for ranking service providers in accordance with charge plans on usage of said wireless LAN equipment (Sections: 0005, 0020, typical hotspots comprise user's contracted with different service providers, priority weighting is used thus, for example, a user with high traffic intensity can be ranked lower than a user with low traffic intensity, said users can be associated with different service providers thus when said users are ranked said service providers are therefore ranked); and means for restricting connection in order from the service providers with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN equipment exceeds a preset number of connections of simultaneously connectable users (Section 0020).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the WLAN system of Banaei in view of Stewart with the

load balancing method of Kostic for the purpose of reducing network congestion as taught by Kostic.

Regarding Claims 18, 23, Banaei in view of Stewart does not teach means for ranking the each of users in accordance with charge plans on usage of said wireless LAN base station; and means for restricting connection in order from the users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN base station exceeds a preset number of connections.

Kostic teaches means for ranking users in accordance with charge plans on usage of said wireless LAN equipment (Sections: 0005, 0020, typical hotspots comprise user's contracted with different service providers, priority weighting is used thus, for example, a user with high traffic intensity can be ranked lower than a user with low traffic intensity, said users can be associated with different service providers thus when said users are ranked said service providers are therefore ranked); and means for restricting connection in order from the users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN equipment exceeds a preset number of connections of simultaneously connectable users (Section 0020).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the WLAN system of Banaei in view of Stewart with the

load balancing method of Kostic for the purpose of reducing network congestion as taught by Kostic.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND S. DEAN whose telephone number is (571)272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond S Dean/
Primary Examiner, Art Unit 2618

Raymond S. Dean
March 24, 2008

/Edward Urban/

Supervisory Patent Examiner, Art Unit 2618